

- p. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:48 and a light chain having the amino acid sequence set forth in SEQ ID NO.:44;
  - q. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:2 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:4, or;
  - r. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:45 and a light chain having the amino acid sequence set forth in SEQ ID NO.:42.
6. The method of claim 1, wherein the anti-KAAG1 antibody or antigen binding fragment thereof of step (b) is conjugated with a detectable moiety.
7. The method of claim 1, wherein the anti-cancer therapeutic of step (a) comprises an antibody or an antigen binding fragment thereof.
8. The method of claim 1, wherein the cancer is selected from the group consisting of ovarian cancer, skin cancer, renal cancer, colorectal cancer, sarcoma, leukemia, brain tumor, thyroid tumor, breast cancer, prostate cancer, oesophageal tumor, bladder tumor, lung tumor and head and neck tumor.
9. The method of claim 1, wherein the detection step comprises detecting KAAG1 at the surface of tumor cells.
10. The method of claim 1, wherein the detection step is performed on a sample obtained from a patient having or suspected of having cancer.
11. The method of claim 10, wherein the sample is a serum sample, a plasma sample, a blood sample or a tissue sample.
12. A method for treating cancer, the method comprising the steps of: (a) administering a first anti-kidney associated antigen 1 (KAAG1) antibody or antigen binding fragment thereof to a patient, (b) contacting a sample obtained from the patient with a second anti-KAAG1 antibody or antigen binding fragment thereof, (c) detecting a complex formed by the second anti-KAAG1 antibody or antigen binding fragment thereof and a KAAG1- or KAAG1-variant expressing cell, and (d) administering a further anti-cancer therapeutic.
13. The method of claim 12, wherein the first anti-KAAG1 antibody or antigen binding fragment thereof is conjugated with a therapeutic moiety.
14. The method of claim 12, wherein the second anti-KAAG1 antibody or antigen binding fragment thereof is conjugated with a detectable moiety.
15. The method of claim 12, wherein the first and/or second anti-KAAG1 antibody or antigen binding fragment thereof comprises a heavy chain variable region comprising the CDRH1 amino acid sequence set forth in SEQ ID NO.:5, the CDRH2 amino acid sequence set forth in SEQ ID NO.:6 or in SEQ ID NO.:56 and the CDRH3 amino acid sequence set forth in SEQ ID NO.:7 and a light chain variable region comprising the CDRL1 amino acid sequence set forth in SEQ ID NO.:8, the CDRL2 amino acid sequence set forth in SEQ ID NO.:9 and the CDRL3 amino acid sequence set forth in SEQ ID NO.:10.
16. The method of claim 12, wherein the first and/or second anti-KAAG1 antibody or antigen binding fragment thereof comprises:
- a. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:41 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:33;
  - b. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:49 and a light chain having the amino acid sequence set forth in SEQ ID NO.:43;
  - c. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:38 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:33;
  - d. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:46 and a light chain having the amino acid sequence set forth in SEQ ID NO.:43;
  - e. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:39 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:33;
  - f. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:47 and a light chain having the amino acid sequence set forth in SEQ ID NO.:43;
  - g. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:40 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:33;
  - h. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:48 and a light chain having the amino acid sequence set forth in SEQ ID NO.:43;
  - i. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:41 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:34;
  - j. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:49 and a light chain having the amino acid sequence set forth in SEQ ID NO.:44;
  - k. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:38 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:34;
  - l. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:46 and a light chain having the amino acid sequence set forth in SEQ ID NO.:44;
  - m. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:39 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:34;
  - n. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:47 and a light chain having the amino acid sequence set forth in SEQ ID NO.:44;
  - o. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:40 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:34;
  - p. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:48 and a light chain having the amino acid sequence set forth in SEQ ID NO.:44;
  - q. a heavy chain variable region having the amino acid sequence set forth in SEQ ID NO.:2 and a light chain variable region having the amino acid sequence set forth in SEQ ID NO.:4, or;
  - r. a heavy chain having the amino acid sequence set forth in SEQ ID NO.:45 and a light chain having the amino acid sequence set forth in SEQ ID NO.:42.
17. The method of claim 12, wherein the cancer is selected from the group consisting of ovarian cancer, skin cancer, renal cancer, colorectal cancer, sarcoma, leukemia,